

**WEST****Generate Collection****Search Results - Record(s) 31 through 37 of 37 returned.**☐ 31. Document ID: AU 200057529 A, WO 200077170 A2

L1: Entry 31 of 37

File: DWPI

Jan 2, 2001

DERWENT-ACC-NO: 2001-182452

DERWENT-WEEK: 200121

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TITLE: In vitro production of functional mammalian organs, especially kidneys, which require no artificial or man-made membranes, from embryonic epithelial-derived explants

INVENTOR: NIGAM, S; QIAO, J

PRIORITY-DATA: 2000WO-US17005 (June 16, 2000)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 200057529 A	January 2, 2001	N/A	000	C12N000/00
WO 200077170 A2	December 21, 2000	E	044	C12N000/00

INT-CL (IPC): C12N 0/00

ABSTRACTED-PUB-NO: WO 200077170A

## BASIC-ABSTRACT:

NOVELTY - New functional mammalian organs are constructed in vitro by (i) culturing embryonic epithelial-derived explants, tissues or cells, (ii) simultaneously culturing isolated metanephric mesenchyme, and (iii) recombining the products of steps (i) and (ii).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

in vitro construction of a functional mammalian organ (or a fragment of this), comprising:

(a) culturing and propagating embryonic epithelial-derived explants, tissues or cells, to give cultured buds comprising:

(i) isolating the tissues or cells and growing them in culture;

(ii) permitting the culture to form multiple branches;

(iii) dissecting out the individual branch tips; and

(iv) reculturing in the presence of serum, growth factor mix (GFM), conditioned medium and nutrient-rich medium for several generations;

(b) simultaneously culturing and propagating isolated embryonic or fetal metanephric mesenchymee, to give vascularized mesenchymes;

(i) dissecting out fetal mesenchyme at the time of induction;

(ii) culturing mesenchymal tissue in the presence of serum, GFM, conditioned medium and nutrient-rich medium;

(iii) partitioning the mesenchyme into multiple pieces and growing each piece separately; and

(iv) inducing vasculogenesis by subjecting grown mesenchyme to substrate deprivation or addition of soluble factors;

(c) recombining each vascularized mesenchyme with each cultured bud, in a matrix in which in vitro angiogenesis has begun; and

(d) growing in richest medium conditions to ensure continued vasculogenesis;

(v) in vitro culturing and propagation of ureteric bud tissue, comprising:

(a) isolating embryonic kidney rudiments by dissection;

(b) isolating ureteric bud tissue fragments from mesenchyme, by:

(i) incubating the kidney rudiments with a proteolytic enzyme in the presence of DNAase; and/or

(ii) by mechanical separation;

(c) suspending the isolated bud fragments in a gel matrix;

(d) placing the gel/fragment composition on porous polycarbonate membrane inserts in wells of tissue culture plates;

(e) adding growth factors to the culture wells;

(f) maintaining the gel composition at the air/medium interface until the bud fragments form multiple tubular branches inside the gel matrix;

(g) dissecting out distal individual branch tips formed during culture; and

(h) reculturing the branch tips in the presence of serum, GFM, cell conditioned medium and nutrient-rich medium for several generations;

(iii) in vitro culturing and propagation of metanephric mesenchyme, comprising:

(a) dissecting out fetal kidney mesenchyme tissue, at the time of induction;

(b) culturing the mesenchymal tissue in the presence of serum, GFM, mesenchymal and or bud cell conditioned medium and nutrient rich medium;

(c) partitioning the cultured mesenchyme into multiple pieces and growing each piece separately in culture; and

(d) subjecting grown mesenchyme to substrate deprivation or addition of vasculogenic growth factors, to induce vasculogenesis;

(A) functional mammalian kidney, constructed in vitro from isolated embryonic or fetal kidney tissue or cells that were cultured in rich medium in which a GFM and inducer substances are present, comprising:

(a) an isolated ureteric bud, propagated in culture to produce a functioning nephron; and

(b) metanephric mesenchyme, propagated from cultured embryonic mesenchymal tissue fragments or cells.

USE - The processes are useful for production of functional replacement organs, or organ fragments, especially replacement kidneys. These organs are useful for treatment of patients suffering from, e.g. urological and nephrological disorders.

ADVANTAGE - The replacement organs require no artificial support and no porous man-made membranes or tubing to carry out their biological functions, particularly filtering of body fluids. A single donor embryonic kidney, or fragment of a kidney, could produce many functional kidneys suitable for treatment of subjects with various kidney disorders. The in vitro produced kidneys would be less antigenic, when transplanted into a subject, because of their embryogenic nature and artificial propagation in culture.

DESCRIPTION OF DRAWING(S) - The figure illustrates the process as described above.

inducer 1

ureteric bud fragment 2

pluripotent fragment 3

branched three-dimensional structure 4

mesenchymal tissue fragment 5

piece of mesenchymal tissue 6

actively branching bud fragment 7

embryonic kidney 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	RWMC	Draw Desc	Clip Img	Image
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☐ 32. Document ID: AU 200049934 A, WO 200066147 A1

L1: Entry 32 of 37

File: DWPI

Nov 17, 2000

DERWENT-ACC-NO: 2001-024738

DERWENT-WEEK: 200111

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TITLE: Method for inducing formation of kidney epithelia using a gp130 receptor ligand such as leukemia inhibitory factor is useful in treatment of subjects suffering from kidney failure and to preserve kidneys for transplantation

INVENTOR: BARASCH, J M; OLIVER, J A ; YANG, J

PRIORITY-DATA: 1999US-0305029 (May 4, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 200049934 A	November 17, 2000	N/A	000	A61K038/16
WO 200066147 A1	November 9, 2000	E	052	A61K038/16

INT-CL (IPC): A61K 38/16

ABSTRACTED-PUB-NO: WO 200066147A

BASIC-ABSTRACT:

NOVELTY - A method of inducing the formation of kidney epithelia comprises contacting mesenchymal precursors, in the presence of a growth factor, with an amount of a purified gp130 receptor ligand effective to induce the formation of the epithelia.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method of inducing the differentiation of fetal tissue, fetal cells, or fetal or postnatal precursor or stem cells into kidney nephrons in a subject with diminished kidney function, the method comprising administering to the subject, in the presence of a growth factor, a gp130 receptor ligand to induce differentiation of the tissue, cells or precursor or stem cells into kidney nephrons; and

(2) a method of inducing the formation of kidney epithelia comprises contacting mesenchymal precursors, in the presence of

a growth factor, with a gp130 receptor ligand to induce the formation of the epithelia.

#### ACTIVITY - Nephrotrophic.

Classical experiments utilized fragments of spinal cord as substitute for ureteric bud to trigger the conversion of isolated metanephric mesenchyme into epithelia. A striking finding was that the spinal cord could be withdrawn after 24 hours of contact with mesenchyme without affecting subsequent epithelial morphogenesis. To determine whether leukemia inducing factor, like embryonic spinal cord, acts as a trigger for epithelialization or is tonically required to produce epithelia, mesenchymes were exposed for 24 hours to recombinant leukemia inhibitory factor (rLIF), washed and recultured in presence of neutralizing antibodies to LIF or to ensure complete removal of LIF. It was seen that incubation with rLIF for 24 hours was sufficient to induce the conversion of the metanephric mesenchyme to epithelia.

MECHANISM OF ACTION - None given.

USE - The method is useful for treating subjects suffering from kidney failure and also for preserving kidneys for transplantation (claimed).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 33. Document ID: AU 200023906 A, WO 200041713 A2

L1: Entry 33 of 37

File: DWPI

Aug 1, 2000

DERWENT-ACC-NO: 2000-491023

DERWENT-WEEK: 200054

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TITLE: Metanephric tissue for improving function of embryonic kidney transplants, comprises embryonic metanephric tissue in combination with growth factor or pretreated with growth factor

INVENTOR: HAMMERMAN, M R; ROGERS, S A

PRIORITY-DATA: 1998US-0222460 (December 29, 1998)

#### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 200023906 A	August 1, 2000	N/A	000	A61K038/18
WO 200041713 A2	July 20, 2000	E	038	A61K038/18

INT-CL (IPC): A61K 31/07; A61K 38/18; A61K 38/20; A61K 38/27; A61K 38/30; A61K 38/30; A61K 38/27; A61K 38/20; A61K 38/18 ; A61K 35/23; A61K 35/23; A61K 35/23; A61K 35/23; A61K 35/23; A61K 31/07

ABSTRACTED-PUB-NO: WO 200041713A  
BASIC-ABSTRACT:

NOVELTY - Isolated embryonic metanephric tissue obtained from a donor at a stage of embryonic development in combination with a growth factor (GF) composition or embryonic metanephric tissue pretreated with the GF composition, is new. GF composition comprises at least one GF for metanephric development.

DETAILED DESCRIPTION - Isolated embryonic metanephric tissue obtained from a donor at a stage of embryonic development in combination with a growth factor (GF) composition or embryonic metanephric tissue pretreated with the GF composition, is new. GF composition comprises at least one GF for metanephric development. The pretreated metanephric tissue has enhanced renal development or function in the recipient as compared to metanephric tissue which has not been pretreated with the GF composition.

INDEPENDENT CLAIMS are also included for the following:

- (1) use of GF composition comprising a growth factor in the preparation of a medicament for enhancing the growth and development of embryonic metanephric tissue prior to implantation into a recipient;
- (2) use of GF composition comprising a growth factor other than insulin-like growth factor I (IGF-I) in the preparation of a medicament for enhancing the growth and development of embryonic metanephric tissue after implantation into a recipient;

ex vivo treatment of embryonic metanephric tissue, comprising contacting the tissue obtained from a donor with a GF composition;

in vivo treatment of metanephric tissue after transplantation into a recipient, comprising contacting the tissue with GF composition containing one or more GF other than IGF-I; and

in vivo treatment of metanephric tissue at the time of transplantation into a recipient, comprising contacting the tissue with GF composition containing one or more GF other than vascular endothelial growth factor.

USE - Embryonic metanephric tissue is useful for increasing the functioning nephron mass obtained upon transplantation into a recipient.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 34. Document ID: AU 9889687 A, WO 9911271 A1

L1: Entry 34 of 37

File: DWPI

Mar 22, 1999

DERWENT-ACC-NO: 1999-204976

DERWENT-WEEK: 199931

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TITLE: Use of polycyclic steroid compounds for treating cystic renal diseases, vascular infarction, uremia and related conditions

INVENTOR: ACOTT, P D; CROCKER, J F S

PRIORITY-DATA: 1997US-0057267 (August 29, 1997)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 9889687 A	March 22, 1999	N/A	000	A61K031/575
WO 9911271 A1	March 11, 1999	E	062	A61K031/575

INT-CL (IPC): A61K 31/575

ABSTRACTED-PUB-NO: WO 9911271A

## BASIC-ABSTRACT:

NOVELTY - Polycyclic steroid compounds (I) can be used for treating cystic renal diseases, vascular infarction, uremia and related conditions.

DETAILED DESCRIPTION - The use is claimed of polycyclic compounds of formula (I) for treating polycystic kidney disease, renal dysplasias and/or renal hypoplasias, vascular infarction, for enhancing glomerular development, enhancing kidney development in a mammal suffering from chronic organ injury, for protecting kidneys from ongoing toxicity of treatment with steroid hormones, and treating growth disturbances in mammals with renal cystic disease, chronic disease or steroid induced catabolism.

A, B = optional rings, and can be replaced with groups which impart the required bulk and electronic features to the compound to retain the desired activity; X6 = H or 1-4C alkyl;

X11 = OH or an aromatic moiety containing 1 or more heteroatom substituents;

X17 = CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub> or -(CH<sub>2</sub>)<sub>n</sub>-CoC-R;

n = 0 or 1;

R = H, Me, CF<sub>3</sub>, Et, SiMe<sub>3</sub>, Cl, Ph or CH<sub>2</sub>CH<sub>2</sub>Ph.

The bonds between positions 1 and 2, 6 and 7 and 9 and 10 may be single or double;

USE - For treating polycystic kidney disease, genetically

transmitted (as an autosomal dominant trait or an autosomal recessive trait, or as the result of a spontaneous genetic mutation), or acquired by exposure to environmental factors such as teratogens (e.g. amines such as diphenylamine and plasticizers such as phthalates), or agents affecting metanephric development (e.g. steroid hormones such as glucocorticoid); for treating renal dysplasias and/or renal hypoplasias, vascular infarction; for enhancing glomerular development; enhancing kidney development in a mammal suffering from chronic organ injury; for protecting kidneys from ongoing toxicity of treatment with steroid hormones; and treating growth disturbances in mammals with renal cystic disease, chronic disease or steroid induced catabolism.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Clip Img	Image
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☐ 35. Document ID: US 5976524 A, EP 853942 A2

L1: Entry 35 of 37

File: DWPI

Nov 2, 1999

DERWENT-ACC-NO: 1998-378903

DERWENT-WEEK: 199953

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TITLE: New embryonic metanephric tissue from donor e.g. pig is transplanted next to omentum or under renal capsule of recipient e.g. human - used to increase functioning nephron mass and to treat renal disease

INVENTOR: HAMMERMAN, M R; HAMMERMAN, M

PRIORITY-DATA: 1997US-0797201 (February 11, 1997),  
1997US-0779159 (January 6, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 5976524 A	November 2, 1999	N/A	000	A61K048/00
EP 853942 A2	July 22, 1998	E	010	A61K035/23

INT-CL (IPC): A01N 1/02; A61K 35/23; A61K 38/30; A61K 48/00

ABSTRACTED-PUB-NO: EP 853942A

BASIC-ABSTRACT:

Embryonic metanephric tissue (EMT) which has been obtained from a donor for increasing the functioning nephron mass of a recipient by implanting the metanephric tissue (MT) next to the recipient's omentum or under the renal capsule of the recipient's kidney to allow the MT to vascularise and develop to form urine, is new. Also claimed is the use of insulin-like growth factor (IGF-I) for enhancing the growth and development of EMT which has been implanted into a recipient.



The EMT preferably contains metanephric blastema, segments of ureteric bud and primitive nephrons and does not contain glomeruli. The MT comprises at least one whole metanephros with renal capsule intact and it is obtained prior to the development of blood vessels within it and within 1-5 (preferably 2-4) days after metanephros formation. The MT is allogenic or xenogenic to the recipient (preferably a human) and the donor is a pig (preferably a pig at about the 10 mm stage or a pig at embryonic day 20-30).

USE - EMT from a non-human embryo is used to prepare donor MT for treating renal diseases (claimed).

ADVANTAGE - The use of kidney tissue from a non-human source avoids the problem of a lack of human donors and the discomfort, time and expense associated with dialysis.  
ABSTRACTED-PUB-NO:

US 5976524A EQUIVALENT-ABSTRACTS:

Embryonic metanephric tissue (EMT) which has been obtained from a donor for increasing the functioning nephron mass of a recipient by implanting the metanephric tissue (MT) next to the recipient's omentum or under the renal capsule of the recipient's kidney to allow the MT to vascularise and develop to form urine, is new. Also claimed is the use of insulin-like growth factor (IGF-I) for enhancing the growth and development of EMT which has been implanted into a recipient.

The EMT preferably contains metanephric blastema, segments of ureteric bud and primitive nephrons and does not contain glomeruli. The MT comprises at least one whole metanephros with renal capsule intact and it is obtained prior to the development of blood vessels within it and within 1-5 (preferably 2-4) days after metanephros formation. The MT is allogenic or xenogenic to the recipient (preferably a human) and the donor is a pig (preferably a pig at about the 10 mm stage or a pig at embryonic day 20-30).

USE - EMT from a non-human embryo is used to prepare donor MT for treating renal diseases (claimed).

ADVANTAGE - The use of kidney tissue from a non-human source avoids the problem of a lack of human donors and the discomfort, time and expense associated with dialysis.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 36. Document ID: US 6071880 A, WO 9811913 A1, AU 9741966 A, ZA 9708334 A, EP 956041 A1, US 5985830 A

L1: Entry 36 of 37

File: DWPI

Jun 6, 2000

DERWENT-ACC-NO: 1998-286384

DERWENT-WEEK: 200033

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TITLE: Use of insulin-like growth factor-1 in treating poly:cystic kidney disease - also useful e.g. for enhancing glomerular development or kidney development, or in protecting against steroid toxicity

INVENTOR: ACOTT, P D; CROCKER, J F S

PRIORITY-DATA: 1996US-0710331 (September 16, 1996),  
1997US-0933196 (September 16, 1997), 1999US-0307005 (May 7, 1999)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6071880 A	June 6, 2000	N/A	000	A61K038/00
WO 9811913 A1	March 26, 1998	E	057	A61K038/30
AU 9741966 A	April 14, 1998	N/A	000	A61K038/30
ZA 9708334 A	May 26, 1999	N/A	055	A61K000/00
EP 956041 A1	November 17, 1999	E	000	A61K038/30
US 5985830 A	November 16, 1999	N/A	000	A61K038/00

INT-CL (IPC): A61K 0/00; A61K 38/00; A61K 38/30

ABSTRACTED-PUB-NO: US 5985830A

## BASIC-ABSTRACT:

The following are claimed: (A) treatment of polycystic kidney disease in mammals, comprising administration of IGF-1; (B) treatment of renal insufficiencies in mammals, comprising administration of IGF-1; (C) enhancing glomerular development in mammals, comprising administration of IGF-1; (D) enhancing kidney development in mammals suffering from chronic organ injury, comprising administration of IGF-1; (E) protecting a subject from the ongoing toxicity of treatment with steroid hormones, comprising administering IGF-1.

USE - The IGF-1 may be used to treat polycystic kidney disease, which may be the result of a genetic predisposition (transmitted as an autosomal dominant or recessive trait), the result of a spontaneous genetic mutation, acquired as a result of exposure to environmental factors, acquired in response to treatment with agents (such as a steroid hormone, especially a glucocorticoid) which affect metanephric development, acquired in response to treatment with teratogenic agents (such as an amine (especially diphenylamine) or a plasticiser (especially a phthalate)). The IGF-1 may be used to treat renal insufficiency, especially a renal dysplasia, renal hypoplasia, congenital renal anomaly or acute renal failure. The IGF-1 may also be used for enhancing glomerular development (e.g. in patients with renal hypoplasia, renal dysplasia, spina bifida, solitary kidneys, interuterine growth retardation, Turner's syndrome or Down's syndrome) or kidney development (e.g. in patients who have undergone transplantation of a small kidney,

patients who suffer from renal tubule poisoning or cancer patients who have undergone chemotherapy), or for protecting against steroid toxicity (e.g. in patients being treated for renal disorders, collagen vascular diseases, arthritis, inflammatory bowel disease or asthma).

ABSTRACTED-PUB-NO:

US 6071880A EQUIVALENT-ABSTRACTS:

The following are claimed: (A) treatment of polycystic kidney disease in mammals, comprising administration of IGF-1; (B) treatment of renal insufficiencies in mammals, comprising administration of IGF-1; (C) enhancing glomerular development in mammals, comprising administration of IGF-1; (D) enhancing kidney development in mammals suffering from chronic organ injury, comprising administration of IGF-1; (E) protecting a subject from the ongoing toxicity of treatment with steroid hormones, comprising administering IGF-1.

USE - The IGF-1 may be used to treat polycystic kidney disease, which may be the result of a genetic predisposition (transmitted as an autosomal dominant or recessive trait), the result of a spontaneous genetic mutation, acquired as a result of exposure to environmental factors, acquired in response to treatment with agents (such as a steroid hormone, especially a glucocorticoid) which affect metanephric development, acquired in response to treatment with teratogenic agents (such as an amine (especially diphenylamine) or a plasticiser (especially a phthalate)). The IGF-1 may be used to treat renal insufficiency, especially a renal dysplasia, renal hypoplasia, congenital renal anomaly or acute renal failure. The IGF-1 may also be used for enhancing glomerular development (e.g. in patients with renal hypoplasia, renal dysplasia, spina bifida, solitary kidneys, interuterine growth retardation, Turner's syndrome or Down's syndrome) or kidney development (e.g. in patients who have undergone transplantation of a small kidney, patients who suffer from renal tubule poisoning or cancer patients who have undergone chemotherapy), or for protecting against steroid toxicity (e.g. in patients being treated for renal disorders, collagen vascular diseases, arthritis, inflammatory bowel disease or asthma).

The following are claimed: (A) treatment of polycystic kidney disease in mammals, comprising administration of IGF-1; (B) treatment of renal insufficiencies in mammals, comprising administration of IGF-1; (C) enhancing glomerular development in mammals, comprising administration of IGF-1; (D) enhancing kidney development in mammals suffering from chronic organ injury, comprising administration of IGF-1; (E) protecting a subject from the ongoing toxicity of treatment with steroid hormones, comprising administering IGF-1.

USE - The IGF-1 may be used to treat polycystic kidney disease, which may be the result of a genetic predisposition (transmitted as an autosomal dominant or recessive trait), the result of a spontaneous genetic mutation, acquired as a result of exposure to environmental factors, acquired in response to

treatment with agents (such as a steroid hormone, especially a glucocorticoid) which affect metanephric development, acquired in response to treatment with teratogenic agents (such as an amine (especially diphenylamine) or a plasticiser (especially a phthalate)). The IGF-1 may be used to treat renal insufficiency, especially a renal dysplasia, renal hypoplasia, congenital renal anomaly or acute renal failure. The IGF-1 may also be used for enhancing glomerular development (e.g. in patients with renal hypoplasia, renal dysplasia, spina bifida, solitary kidneys, interuterine growth retardation, Turner's syndrome or Down's syndrome) or kidney development (e.g. in patients who have undergone transplantation of a small kidney, patients who suffer from renal tubule poisoning or cancer patients who have undergone chemotherapy), or for protecting against steroid toxicity (e.g. in patients being treated for renal disorders, collagen vascular diseases, arthritis, inflammatory bowel disease or asthma).

WO 9811913A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	RWD	Draw Desc	Image
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☐ 37. Document ID: US 5882923 A, WO 9749798 A1

L1: Entry 37 of 37

File: DWPI

Mar 16, 1999

DERWENT-ACC-NO: 1998-077164

DERWENT-WEEK: 199918

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TITLE: Use of glial cell line-derived neurotrophic factor - for developing products for regulation of kidney morphogenesis and in the development of the peripheral nervous system

INVENTOR: ARUMAE, U; LINDAHL, M ; SAARMA, M ; SAINIO, K ; SARIOLA, H ; SUVANTO, P ; ARUMAE, U

PRIORITY-DATA: 1996US-0021964 (June 27, 1996), 1997US-0884176 (June 27, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 5882923 A	March 16, 1999	N/A	021	C12N005/00
WO 9749798 A1	December 31, 1997	E	048	C12N005/08

INT-CL (IPC): A61K 38/18; C12N 5/00; C12N 5/02; C12N 5/08

ABSTRACTED-PUB-NO: US 5882923A

BASIC-ABSTRACT:

The following are claimed: (A) a method for maintaining ureteric cells (UCs) in culture by culturing the UCs in a medium containing glial cell-line derived neurotrophic factor

(GDNF); (B) a method for preventing apoptosis of UCs by contacting the UCs with GDNF; (C) a method for stimulating ureteric budding from the Wolffian duct in bud-negative or bud-positive metanephric mesenchymes (MMs) comprising contacting the MMs with GDNF; (D) a method for stimulating ureteric branching comprising culturing early bud-stage ureteric epithelium with lung mesenchymes in the presence of a growth factor selected from GDNF, hepatocyte growth factor/scatter factor (HGF) and transforming growth factor beta-1 (TGFB1); (E) a method for treating Hirschsprung's disease or renal dysplasia comprising application of GDNF to prevent cellular apoptosis; (F) a method for stimulating axonal outgrowth comprising contacting neuroblasts with GDNF; (G) a method for stimulating adhesion between UCs comprising contacting the cells with GDNF, and (H) a method for stimulating the synthesis of basal lamina on UCs comprising contacting the cells with GDNF.

USE - The methods can be used for developing products for treating disorders in kidney morphogenesis and also in the development of the peripheral nervous system. The products can be used for treating disorders such as Hirschsprung disease, renal dysplasia, Parkinson's disease and Alzheimer's disease. The concentration of GDNF is 1-100 (preferably 50-100) ng/ml.  
ABSTRACTED-PUB-NO:

WO 9749798A EQUIVALENT-ABSTRACTS:

NOVELTY - The use of glial cell line-derived growth factor for stimulating uterine and neuronal cell growth is new.

DETAILED DESCRIPTION - A novel method for maintaining ureteric cells (UCs) in culture comprises culturing the UCs in a medium containing glial cell line-derived neurotrophic factor (GDNF).

INDEPENDENT CLAIMS are also included for:

- (1) a method for preventing apoptosis of UCs comprising contacting the UCs with GDNF;
- (2) a method for stimulating ureteric budding from the Wolffian duct in bud-negative metanephric mesenchymes (MMs) comprising contacting the MMs with GDNF;
- (3) a method for stimulating ureteric branching from the Wolffian duct in bud-positive MMs comprising contacting the MMs with GDNF;
- (4) a method for stimulating ureteric branching comprising culturing early bud-stage ureteric epithelium with lung mesenchymes in the presence of a growth factor selected from GDNF, hepatocyte growth factor/scatter factor, and transforming growth factor- beta 1;
- (5) a method for treating Hirschsprung's disease or renal dysplasia comprising application of GDNF to prevent cellular apoptosis;

- (6) a method for stimulating axonal outgrowth comprising contacting neuroblasts with GDNF;
- (7) a method for stimulating adhesion between UCs comprising contacting the cells with GDNF; and
- (8) a method for stimulating the synthesis of basil lamina on UCs comprising contacting the cells with GDNF.

USE - The methods can be used for maintaining UCs in culture, preventing apoptosis of UCs, stimulating ureteric budding of the Wolffian duct, stimulating ureteric branching, stimulating adhesion between UCs, stimulating axonal outgrowth of neuronal cells. They can be used for treating e.g. Hirschsprung disease, renal dysplasia, Parkinson's diseases and Alzheimer's disease.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw Desc	Image
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Term	Documents
METANEPHRIC.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	37
METANEPHRICS	0
METANEPHRIC.USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	37

Display

10

Documents, starting with Document:

37

**Display Format:**

REV

Change Format

**WEST**[Generate Collection](#)**Search Results - Record(s) 1 through 3 of 3 returned.**☐ 1. Document ID: US 6159462 A

L2: Entry 1 of 3

File: USPT

Dec 12, 2000

US-PAT-NO: 6159462

DOCUMENT-IDENTIFIER: US 6159462 A

TITLE: Uses of Wnt polypeptides

DATE-ISSUED: December 12, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Matthews; William	Woodside	CA	N/A	N/A
Austin; Timothy W.	Morgan Hill	CA	N/A	N/A

US-CL-CURRENT: 424/85.1; 424/85.2, 435/383, 435/395, 435/404,  
435/405, 435/406, 514/2, 514/814, 530/350, 530/351, 530/868

## ABSTRACT:

Uses for Wnt polypeptides in hematopoiesis are disclosed. In particular, in vitro and in vivo methods for enhancing proliferation, differentiation or maintenance of a hematopoietic stem/progenitor cell using a Wnt polypeptide, and optionally another cytokine, are described.

13 Claims, 4 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 2. Document ID: US 5851984 A

L2: Entry 2 of 3

File: USPT

Dec 22, 1998

US-PAT-NO: 5851984

DOCUMENT-IDENTIFIER: US 5851984 A

TITLE: Method of enhancing proliferation or differentiation of hematopoietic stem cells using Wnt polypeptides

DATE-ISSUED: December 22, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Matthews; William	Woodside	CA	N/A	N/A
Austin; Timothy W.	Morgan Hill	CA	N/A	N/A

US-CL-CURRENT: 514/2; 424/85\_1, 435/2

## ABSTRACT:

Uses for Wnt polypeptides in hematopoiesis are disclosed. In particular, in vitro and in vivo methods for enhancing proliferation or differentiation of a hematopoietic stem/progenitor cell using a Wnt polypeptide, and optionally another cytokine, are described.

20 Claims, 4 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 3. Document ID: AU 200023906 A, WO 200041713 A2

L2: Entry 3 of 3

File: DWPI

Aug 1, 2000

DERWENT-ACC-NO: 2000-491023

DERWENT-WEEK: 200054

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TITLE: Metanephric tissue for improving function of embryonic kidney transplants, comprises embryonic metanephric tissue in combination with growth factor or pretreated with growth factor

INVENTOR: HAMMERMAN, M R; ROGERS, S A

PRIORITY-DATA: 1998US-0222460 (December 29, 1998)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 200023906 A	August 1, 2000	N/A	000	A61K038/18
WO 200041713 A2	July 20, 2000	E	038	A61K038/18

INT-CL (IPC): A61K 31/07; A61K 38/18; A61K 38/20; A61K 38/27; A61K 38/30; A61K 38/30; A61K 38/27; A61K 38/20; A61K 38/18 ; A61K 35/23; A61K 35/23; A61K 35/23; A61K 35/23; A61K 35/23;



A61K 31/07

ABSTRACTED-PUB-NO: WO 200041713A

BASIC-ABSTRACT:

NOVELTY - Isolated embryonic metanephric tissue obtained from a donor at a stage of embryonic development in combination with a growth factor (GF) composition or embryonic metanephric tissue pretreated with the GF composition, is new. GF composition comprises at least one GF for metanephric development.

DETAILED DESCRIPTION - Isolated embryonic metanephric tissue obtained from a donor at a stage of embryonic development in combination with a growth factor (GF) composition or embryonic metanephric tissue pretreated with the GF composition, is new. GF composition comprises at least one GF for metanephric development. The pretreated metanephric tissue has enhanced renal development or function in the recipient as compared to metanephric tissue which has not been pretreated with the GF composition.

INDEPENDENT CLAIMS are also included for the following:

(1) use of GF composition comprising a growth factor in the preparation of a medicament for enhancing the growth and development of embryonic metanephric tissue prior to implantation into a recipient;

(2) use of GF composition comprising a growth factor other than insulin-like growth factor I (IGF-I) in the preparation of a medicament for enhancing the growth and development of embryonic metanephric tissue after implantation into a recipient;

ex vivo treatment of embryonic metanephric tissue, comprising contacting the tissue obtained from a donor with a GF composition;

in vivo treatment of metanephric tissue after transplantation into a recipient, comprising contacting the tissue with GF composition containing one or more GF other than IGF-I; and

in vivo treatment of metanephric tissue at the time of transplantation into a recipient, comprising contacting the tissue with GF composition containing one or more GF other than vascular endothelial growth factor.

USE - Embryonic metanephric tissue is useful for increasing the functioning nephron mass obtained upon transplantation into a recipient.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw Desc	Image
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